



Serial No.: 10/029,206

REMARKS

The application has been amended to replace the Sequence Listing with the attached substitute Sequence Listing. Submitted herewith is the substitute Sequence Listing (Appendix A) and a marked-up version of the substitute Sequence Listing with markings to show changes made (Appendix B). It is respectfully submitted that no new matter has been added by the amendment. Modifications have been made in response to the Notice to Comply. Such modifications include a change in the title of the invention from "Gene regulator" to "Oligopeptide treatment of anthrax" to accurately reflect the as-filed title of the referenced application, a change in the feature description from "MISC" to "MISC_FEATURE" in SEQ ID NOS: 97 and 98, a change in the alignment of the amino acid numbering in SEQ ID NOS: 173 and 174, and a change in the value indicating the number of amino acids in SEQ ID NO: 175 from "10" to "9" as only 9 amino acids are in the sequence.

If any questions remain after consideration of the instant amendments, the Office is kindly requested to contact applicants' attorney at the address or telephone number given herein.

Respectfully submitted,

Tawni L. Wilhelm Reg No 33045

for

Tawni L. Wilhelm
Registration No. 47,456
Attorney for Applicants

TRASKBRITT, PC

P. O. Box 2550

Salt Lake City, Utah 84110-2550

Telephone: (801) 532-1922

Date: September 30, 2002

ACT/TLW/

Enclosures: Appendices A and B

APPENDIX A
CLEAN VERSION OF SUBSTITUTE SEQUENCE LISTING
(Application Serial No. 10/029,206)



SEQUENCE LISTING

<110> Khan, Nisar A.
Benner, Robert

<120> Oligopeptide treatment of anthrax

<130> 2183-5222US

<140> 10/029,206

<141> 2001-12-21

<150> 09/821,380

<151> 2001-03-29

<160> 175

<170> PatentIn Ver. 2.1

<210> 1

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 1

Leu Gln Gly Val

1

<210> 2

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 2

Ala Gln Gly Val

1

<210> 3

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 3

Val Leu Pro Ala Leu Pro
1 5

<210> 4
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 4
Met Leu Ala Arg Arg Lys Pro Val Leu Pro Ala Leu Thr Ile Asn Pro
1 5 10 15

<210> 5
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 5
Met Leu Ala Arg Arg Lys Pro
1 5

<210> 6
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 6
Met Leu Ala Arg
1

<210> 7
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 7
Val Leu Pro Ala Leu Thr
1 5

<210> 8

<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1QMH/1QMH-A

<400> 8
Val Leu Pro Ala Leu
1 5

<210> 9
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/4NOS/4NOS-A

<400> 9
Phe Pro Gly Cys
1

<210> 10
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.297775.1

<400> 10
Pro Gly Cys Pro
1

<210> 11
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swiss/P81272/NS2B HUMAN

<400> 11
Gly Val Leu Pro Ala Val Pro
1 5

<210> 12
<211> 6

<212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 swiss/P81272/NS2B HUMAN

 <400> 12
 Val Leu Pro Ala Val Pro
 1 5

 <210> 13
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1FZV/1FZV-A

 <400> 13
 Pro Ala Val Pro
 1

 <210> 14
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 14
 Leu Gln Gly Val Val Pro Arg Gly Val
 1 5

 <210> 15
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 15
 Gly Val Val Pro
 1

 <210> 16
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 16
 Val Pro Arg Gly Val
 1 5

 <210> 17
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 17
 Pro Arg Gly Val
 1

 <210> 18
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: polypeptide

 <400> 18
 Met Ala Pro Lys Lys
 1

 <210> 19
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 19
 Leu Gln Gly Ala
 1

 <210> 20
 <211> 10
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

<400> 20
Val Leu Pro Ala Leu Pro Gln Val Val Cys
1 5 10

<210> 21
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 21
Ala Leu Pro Ala Leu Pro
1 5

<210> 22
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 22
Val Ala Pro Ala Leu Pro
1 5

<210> 23
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 23
Ala Leu Pro Ala Leu Pro Gln
1 5

<210> 24
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 24
Val Leu Pro Ala Ala Pro Gln
1 5

<210> 25
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 25
Val Leu Pro Ala Leu Ala Gln
1 5

<210> 26
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 26
Leu Ala Gly Val
1

<210> 27
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 27
Val Leu Ala Ala Leu Pro
1 5

<210> 28
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 28
Val Leu Pro Ala Leu Ala
1 5

<210> 29
<211> 7
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 29

Val Leu Pro Ala Leu Pro Gln
1 5

<210> 30

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 30

Val Leu Ala Ala Leu Pro Gln
1 5

<210> 31

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 31

Val Leu Pro Ala Leu Pro Ala
1 5

<210> 32

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 32

Gly Val Leu Pro Ala Leu Pro
1 5

<210> 33

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 33
Gly Val Leu Pro Ala Leu Pro Gln
1 5

<210> 34
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 34
Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys
1 5 10

<210> 35
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 35
Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro
1 5 10 15
Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
20 25 30

Ser Cys Gln Cys Ala Leu
35

<210> 36
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 36
Arg Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys
1 5 10 15

<210> 37
<211> 20
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 37

Glu Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly
1 5 10 15

Tyr Cys Pro Thr
20

<210> 38

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 38

Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly
1 5 10 15

Pro Ser

<210> 39

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 39

Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser
1 5 10 15

<210> 40

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 40

Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser
1 5 10

<210> 41

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 41

Leu Pro Gly Cys

1

<210> 42

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 42

Met Thr Arg Val

1

<210> 43

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 43

Gln Val Val Cys

1

<210> 44

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 44

Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 45

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 45

Arg Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys Glu
1 5 10 15

Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly Tyr
20 25 30

Cys Pro Thr
35

<210> 46

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 46

Cys Ala Leu Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp
1 5 10 15

His Pro Leu Thr Cys
20

<210> 47

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 47

Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu
1 5 10 15

Thr Cys

<210> 48

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 48

Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser Ser Ser Lys Ala Pro
1 5 10 15

Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr
20 25 30

Pro Ile Leu Pro Gln
35

<210> 49

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 49

Leu Gln Gly Val Leu Pro Ala Leu Pro Gln
1 5 10

<210> 50

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF peptide

<400> 50

Cys Pro Arg Gly Val Asn Pro Val Val Ser
1 5 10

<210> 51

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: probe to
represent the NF-kappaB binding sequence

<400> 51

agctcagagg gggactttcc gagag 25

<210> 52

<211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: peptide LQAV
 showed smaller infarcted area

 <400> 52
 Leu Gln Ala Val
 1

 <210> 53
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1DE7/1DE7-A

 <400> 53
 Leu Gln Gly Val Val
 1 5

 <210> 54
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1DE7/1DE7-A

 <400> 54
 Leu Gln Gly Val Val Pro
 1 5

 <210> 55
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1DL6/1DL6-A

 <400> 55
 Leu Asp Ala Leu Pro
 1 5

 <210> 56

<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1QMH/1QMH-A

<400> 56
Leu Gln Thr Val
1

<210> 57
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1QMH/1QMH-A

<400> 57
Leu Val Leu Gln Thr Val Leu Pro Ala Leu
1 5 10

<210> 58
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1LYP/1LYP

<400> 58
Ile Gln Gly Leu
1

<210> 59
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1LYP/1LYP

<400> 59
Leu Pro Lys Leu
1

<210> 60
<211> 5
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1LYP/1LYP

<400> 60

Leu Leu Pro Lys Leu
1 5

<210> 61

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1B90/1B90-A

<400> 61

Leu Pro Glu Leu
1

<210> 62

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1GLU/1GLU-A

<400> 62

Pro Ala Arg Pro
1

<210> 63

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/2KIN/2KIN-B

<400> 63

Met Thr Arg Ile
1

<210> 64

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 64

Leu Gln Lys Leu
1

<210> 65

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 65

Leu Gln Lys Leu Leu
1 5

<210> 66

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 66

Pro Glu Ala Pro
1

<210> 67

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 67

Leu Gln Lys Leu Leu Pro Glu Ala Pro
1 5

<210> 68

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1ES/1ES7-B

<400> 68

Pro Thr Leu Pro

1

<210> 69

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1ES/1ES7-B

<400> 69

Leu Gln Pro Thr Leu

1

5

<210> 70

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1BHX/1BHX-F

<400> 70

Leu Gln Val Val

1

<210> 71

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1VCB/1VCB-A

<400> 71

Pro Glu Leu Pro

1

<210> 72

<211> 4

<212> PRT

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 pdb/1CQK/1CQK-A

 <400> 72
 Pro Ala Ala Pro
 1

 <210> 73
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1CQK/1CQK-A

 <400> 73
 Pro Ala Ala Pro Gln
 1 5

 <210> 74
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1CQK/1CQK-A

 <400> 74
 Pro Ala Ala Pro Gln Val
 1 5

 <210> 75
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: pdb/1BFB/1BFB

 <400> 75
 Leu Pro Ala Leu
 1

 <210> 76
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: pdb/1BFB/1BFB

<400> 76

Pro Ala Leu Pro

1

<210> 77

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFB/1BFB

<400> 77

Pro Ala Leu Pro Glu

1

5

<210> 78

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1R2A/1R2A-A

<400> 78

Leu Thr Glu Leu Leu

1

5

<210> 79

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C3G peptide

<400> 79

Pro Pro Pro Ala Leu Pro Pro Lys Lys Arg

1

5

10

<210> 80

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1RLQ/1RLQ-R

<400> 80

Leu Pro Pro Leu

1

<210> 81

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1RLQ/1RLQ-R; swissnew/P01229/LSHB HUMAN

<400> 81

Pro Pro Leu Pro

1

<210> 82

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1TNT/1TNT

<400> 82

Leu Pro Gly Leu

1

<210> 83

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1GJS/1GJS-A

<400> 83

Leu Ala Ala Leu

1

<210> 84

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1GJS/1GJS-A

<400> 84

Leu Ala Ala Leu Pro
1 5

<210> 85
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1GBR/1GBR-B

<400> 85
Pro Lys Leu Pro
1

<210> 86
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1A78/1A78-A

<400> 86
Val Leu Pro Ser Ile Pro
1 5

<210> 87
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1FZV/1FZV-A

<400> 87
Met Leu Pro Ala Val Pro
1 5

<210> 88
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1JLI/1JLI

<400> 88
Leu Pro Cys Leu

1

<210> 89
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1JLI/1JLI

<400> 89
Pro Cys Leu Pro
1

<210> 90
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1HSS/1HSS-A

<400> 90
Val Pro Ala Leu Pro
1 5

<210> 91
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1PRX/1PRX-A

<400> 91
Pro Thr Ile Pro
1

<210> 92
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1PRX/1PRX-A

<400> 92
Val Leu Pro Thr Ile Pro
1 5

<210> 93
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1RCY/1RCY

<400> 93
Val Leu Pro Gly Phe Pro
1 5

<210> 94
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1A3Z/1A3Z

<400> 94
Pro Gly Phe Pro
1

<210> 95
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1GER/1GER-A

<400> 95
Leu Pro Ala Leu Pro
1 5

<210> 96
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BBS/1BBS

<400> 96
Met Pro Ala Leu Pro
1 5

<210> 97
<211> 17

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: AI188872

<220>
<221> MISC_FEATURE
<222> (2)
<223> The 'Xaa' at position 2 indicates an unknown amino acid

<400> 97
Met Xaa Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 98
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: AI188872

<220>
<221> MISC_FEATURE
<222> (2)
<223> The 'Xaa' at position 2 indicates an unknown amino acid

<400> 98
Met Xaa Arg Val
1

<210> 99
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: AI126906

<400> 99
Ile Thr Arg Val Met Gln Gly Val Ile Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 100
<211> 16
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: AI221581

<400> 100

Met Thr Arg Val Leu Gln Val Val Leu Leu Ala Leu Pro Gln Leu Val
1 5 10 15

<210> 101

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.42246.3

<400> 101

Lys Val Ile Gln Gly Ser Leu Asp Ser Leu Pro Gln Ala Val
1 5 10

<210> 102

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.42246.3

<400> 102

Leu Asp Ser Leu
1

<210> 103

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.22430.1

<400> 103

Val Leu Gln Ala Ile Leu Pro Ser Ala Pro Gln
1 5 10

<210> 104

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.22430.1

<400> 104
Leu Gln Ala Ile Leu
1 5

<210> 105
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mm.22430.1

<400> 105
Pro Ser Ala Pro
1

<210> 106
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.63758.4

<400> 106
Lys Val Leu Gln Gly Arg Leu Pro Ala Val Ala Gln Ala Val
1 5 10

<210> 107
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.63758.4

<400> 107
Leu Pro Ala Val
1

<210> 108
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mm.129320.2

<400> 108
Leu Val Gln Lys Val Val Pro Met Leu Pro Arg Leu Leu Cys
1 5 10

<210> 109
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mm.129320.2

<400> 109
Leu Pro Arg Leu
1

<210> 110
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mm.129320.2

<400> 110
Pro Met Leu Pro
1

<210> 111
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mm.22430.1

<400> 111
Pro Ser Ala Pro Gln
1 5

<210> 112
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: P20155

<400> 112
Leu Pro Gly Cys Pro Arg His Phe Asn Pro Val
1 5 10

<210> 113
<211> 11
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rn.2337.1

<400> 113

Leu Val Gly Cys Pro Arg Asp Tyr Asp Pro Val
1 5 10

<210> 114

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rn.2337.1

<400> 114

Leu Val Gly Cys
1

<210> 115

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hs.297775.1

<400> 115

Pro Gly Cys Pro Arg Gly
1 5

<210> 116

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.1359.1

<400> 116

Leu Pro Gly Cys Pro
1 5

<210> 117

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/O56177/O56177

<400> 117

Val Leu Pro Ala Ala Pro
1 5

<210> 118

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 118

Leu Ala Gly Thr Ile Pro Ala Thr Pro
1 5

<210> 119

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 119

Pro Ala Thr Pro
1

<210> 120

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9IYZ3/Q9IYZ3

<400> 120

Gly Leu Leu Pro Cys Leu Pro
1 5

<210> 121

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9PVW5/Q9PVW5

<400> 121

Pro Gly Ala Pro

1

<210> 122

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9PVW5/Q9PVW5

<400> 122

Leu Pro Gln Arg Pro Arg Gly Pro Asn Pro

1

5

10

<210> 123

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9PVW5/Q9PVW5

<400> 123

Pro Arg Gly Pro

1

<210> 124

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hs.303116.2

<400> 124

Gly Cys Pro Arg

1

<210> 125

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1DU3/1DU3-A

<400> 125
Gly Cys Pro Arg Gly Met
1 5

<210> 126
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BIO/1BIO

<400> 126
Leu Gln His Val
1

<210> 127
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1FL7/1FL7-B

<400> 127
Val Pro Gly Cys
1

<210> 128
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1HR6/1HR6-A

<400> 128
Cys Pro Arg Gly
1

<210> 129
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1H6/1HR6-A

<400> 129

Leu Lys Gly Cys

1

<210> 130

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 130

Pro Pro Gly Pro

1

<210> 131

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 131

Leu Pro Gly Cys Pro Arg Glu Val

1

5

<210> 132

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 132

Cys Pro Arg Glu

1

<210> 133

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 133

Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Leu Pro Gln Val Val

1

5

10

15

Cys

<210> 134
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 134
Met Met Arg Val
1

<210> 135
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 135
Val Leu Pro Pro Leu Pro
1 5

<210> 136
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 136
Val Leu Pro Pro Leu Pro Gln
1 5

<210> 137
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 137
Ala Val Leu Pro Pro Leu Pro

1

5

<210> 138

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 138

Ala Val Leu Pro Pro Leu Pro Gln

1

5

<210> 139

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 139

Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Val Pro Gln Val Val

1

5

10

15

Cys

<210> 140

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 140

Leu Gln Ala Gly

1

<210> 141

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 141
 Val Leu Pro Pro Val Pro
 1 5

<210> 142
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 142
 Val Leu Pro Pro Val Pro Gln
 1 5

<210> 143
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 143
 Ala Val Leu Pro Pro Val Pro
 1 5

<210> 144
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 144
 Ala Val Leu Pro Pro Val Pro Gln
 1 5

<210> 145
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/Q28376/TSHB HORSE

<400> 145

Met Thr Arg Asp

1

<210> 146

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

swissnew/Q28376/TSHB HORSE

<400> 146

Gln Asp Val Cys

1

<210> 147

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

swissnew/Q28376/TSHB HORSE

<400> 147

Ile Pro Gly Cys

1

<210> 148

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9Z284/Q9Z284

<400> 148

Pro Ala Leu Pro Ser

1

5

<210> 149

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9UCG8/Q9UCG8

<400> 149
Leu Pro Gly Gly Pro Arg
1 5

<210> 150
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 150
Leu Pro Gly Gly
1

<210> 151
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 151
Gly Gly Pro Arg
1

<210> 152
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: XP_028754

<400> 152
Leu Gln Arg Gly
1

<210> 153
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: XP_028754

<400> 153
Leu Gln Arg Gly Val

1

5

<210> 154
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: XP_028754

<400> 154
Leu Gly Gln Leu
1

<210> 155
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SignalP (CBS)

<400> 155
Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro
1 5 10

<210> 156
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 156
Val Leu Gln Gly Val Leu Pro Ala Leu
1 5

<210> 157
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 157
Gly Val Leu Pro Ala Leu Pro Gln Val
1 5

<210> 158
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 158
Val Leu Pro Ala Leu Pro Gln Val Val
1 5

<210> 159
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 159
Arg Leu Pro Gly Cys Pro Arg Gly Val
1 5

<210> 160
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 160
Thr Met Thr Arg Val Leu Gln Gly Val
1 5

<210> 161
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 161
Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu
1 5 10 15

<210> 162
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 162
Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val
1 5 10 15

<210> 163
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0101
15-mers

<400> 163
Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser
1 5 10 15

<210> 164
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0101
15-mers

<400> 164
Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

<210> 165
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0101
15-mers

<400> 165
Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr
1 5 10 15

<210> 166
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0301
(DR17) 15-mers

<400> 166
Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val
1 5 10 15

<210> 167
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0301
(DR17) 15-mers

<400> 167
Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val
1 5 10 15

<210> 168
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 168
Val Ala Pro Ala Leu Pro Gln
1 5

<210> 169
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-62
peptide

<400> 169
Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro
1 5 10 15

Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
20 25 30

Ser Cys Gln
35

<210> 170
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-67
peptide

<400> 170
Cys Pro Arg Gly Val Asn Pro
1 5

<210> 171
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-70
peptide

<400> 171
Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln
1 5 10

<210> 172
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-75
peptide

<400> 172
Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly
1 5 10 15

Pro Cys

<210> 173
<211> 7
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 173

Val Ala Pro Ala Leu Pro Gln
1 5

<210> 174

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-71
peptide

<400> 174

Met Thr Arg Val Leu Pro Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 175

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF peptide

<400> 175

Cys Arg Gly Val Asn Pro Val Val Ser
1 5

APPENDIX B
MARKED-UP VERSION OF SUBSTITUTE SEQUENCE LISTING
WITH MARKINGS TO SHOW CHANGES MADE
(Application Serial No. 10/029,206)

SEQUENCE LISTING

<110> Khan, Nisar A.
Benner, Robert

<120> ~~Gene regulator~~Oligopeptide treatment of anthrax

<130> 2183-5222US

<140> 10/029,206

<141> 2001-12-21

<150> 09/821,380

<151> 2001-03-29

<160> 175

<170> PatentIn Ver. 2.1

<210> 1

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 1

Leu Gln Gly Val

1

<210> 2

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 2

Ala Gln Gly Val

1

<210> 3

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 3

Val Leu Pro Ala Leu Pro
1 5

<210> 4
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 4
Met Leu Ala Arg Arg Lys Pro Val Leu Pro Ala Leu Thr Ile Asn Pro
1 5 10 15

<210> 5
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 5
Met Leu Ala Arg Arg Lys Pro
1 5

<210> 6
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 6
Met Leu Ala Arg
1

<210> 7
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide

<400> 7
Val Leu Pro Ala Leu Thr
1 5

<210> 8

<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1QMH/1QMH-A

<400> 8
Val Leu Pro Ala Leu
1 5

<210> 9
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/4NOS/4NOS-A

<400> 9
Phe Pro Gly Cys
1

<210> 10
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.297775.1

<400> 10
Pro Gly Cys Pro
1

<210> 11
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swiss/P81272/NS2B HUMAN

<400> 11
Gly Val Leu Pro Ala Val Pro
1 5

<210> 12
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swiss/P81272/NS2B HUMAN

<400> 12
Val Leu Pro Ala Val Pro
1 5

<210> 13
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1FZV/1FZV-A

<400> 13
Pro Ala Val Pro
1

<210> 14
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 14
Leu Gln Gly Val Val Pro Arg Gly Val
1 5

<210> 15
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 15
Gly Val Val Pro
1

<210> 16
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 16
Val Pro Arg Gly Val
1 5

<210> 17
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 17
Pro Arg Gly Val
1

<210> 18
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: polypeptide

<400> 18
Met Ala Pro Lys Lys
1

<210> 19
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 19
Leu Gln Gly Ala
1

<210> 20
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 20
Val Leu Pro Ala Leu Pro Gln Val Val Cys
1 5 10

<210> 21
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 21
Ala Leu Pro Ala Leu Pro
1 5

<210> 22
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 22
Val Ala Pro Ala Leu Pro
1 5

<210> 23
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 23
Ala Leu Pro Ala Leu Pro Gln
1 5

<210> 24
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 24
Val Leu Pro Ala Ala Pro Gln
1 5

<210> 25
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 25
 Val Leu Pro Ala Leu Ala Gln
 1 5

 <210> 26
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 26
 Leu Ala Gly Val
 1

 <210> 27
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 27
 Val Leu Ala Ala Leu Pro
 1 5

 <210> 28
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: oligopeptide

 <400> 28
 Val Leu Pro Ala Leu Ala
 1 5

 <210> 29
 <211> 7
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 29

Val Leu Pro Ala Leu Pro Gln
1 5

<210> 30

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 30

Val Leu Ala Ala Leu Pro Gln
1 5

<210> 31

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 31

Val Leu Pro Ala Leu Pro Ala
1 5

<210> 32

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 32

Gly Val Leu Pro Ala Leu Pro
1 5

<210> 33

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 33
Gly Val Leu Pro Ala Leu Pro Gln
1 5

<210> 34
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 34
Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys
1 5 10

<210> 35
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 35
Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro
1 5 10 15
Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
20 25 30

Ser Cys Gln Cys Ala Leu
35

<210> 36
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: oligopeptide

<400> 36
Arg Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys
1 5 10 15

<210> 37
<211> 20
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 37

Glu Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly
1 5 10 15

Tyr Cys Pro Thr
20

<210> 38

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 38

Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly
1 5 10 15

Pro Ser

<210> 39

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 39

Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser
1 5 10 15

<210> 40

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 40

Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser
1 5 10

<210> 41

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 41

Leu Pro Gly Cys

1

<210> 42

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 42

Met Thr Arg Val

1

<210> 43

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: oligopeptide

<400> 43

Gln Val Val Cys

1

<210> 44

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 44

Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 45

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 45

Arg Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys Glu
1 5 10 15

Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly Tyr
20 25 30

Cys Pro Thr
35

<210> 46

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 46

Cys Ala Leu Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp
1 5 10 15

His Pro Leu Thr Cys
20

<210> 47

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 47

Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu
1 5 10 15

Thr Cys

<210> 48

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 48

Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser Ser Ser Lys Ala Pro
1 5 10 15

Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr
20 25 30

Pro Ile Leu Pro Gln
35

<210> 49

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 49

Leu Gln Gly Val Leu Pro Ala Leu Pro Gln
1 5 10

<210> 50

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF peptide

<400> 50

Cys Pro Arg Gly Val Asn Pro Val Val Ser
1 5 10

<210> 51

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: probe to
represent the NF-kappaB binding sequence

<400> 51

agctcagagg gggactttcc gagag 25

<210> 52

<211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: peptide LQAV
 showed smaller infarcted area

 <400> 52
 Leu Gln Ala Val
 1

 <210> 53
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1DE7/1DE7-A

 <400> 53
 Leu Gln Gly Val Val
 1 5

 <210> 54
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1DE7/1DE7-A

 <400> 54
 Leu Gln Gly Val Val Pro
 1 5

 <210> 55
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1DL6/1DL6-A

 <400> 55
 Leu Asp Ala Leu Pro
 1 5

 <210> 56

<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1QMH/1QMH-A

<400> 56
Leu Gln Thr Val
1

<210> 57
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1QMH/1QMH-A

<400> 57
Leu Val Leu Gln Thr Val Leu Pro Ala Leu
1 5 10

<210> 58
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1LYP/1LYP

<400> 58
Ile Gln Gly Leu
1

<210> 59
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1LYP/1LYP

<400> 59
Leu Pro Lys Leu
1

<210> 60
<211> 5
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1LYP/1LYP

<400> 60

Leu Leu Pro Lys Leu
1 5

<210> 61

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1B9O/1B9O-A

<400> 61

Leu Pro Glu Leu
1

<210> 62

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1GLU/1GLU-A

<400> 62

Pro Ala Arg Pro
1

<210> 63

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/2KIN/2KIN-B

<400> 63

Met Thr Arg Ile
1

<210> 64

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 64

Leu Gln Lys Leu
1

<210> 65

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 65

Leu Gln Lys Leu Leu
1 5

<210> 66

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 66

Pro Glu Ala Pro
1

<210> 67

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1SMP/1SMP-I

<400> 67

Leu Gln Lys Leu Leu Pro Glu Ala Pro
1 5

<210> 68

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1ES/1ES7-B

<400> 68

Pro Thr Leu Pro

1

<210> 69

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1ES/1ES7-B

<400> 69

Leu Gln Pro Thr Leu

1

5

<210> 70

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1BHX/1BHX-F

<400> 70

Leu Gln Val Val

1

<210> 71

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1VCB/1VCB-A

<400> 71

Pro Glu Leu Pro

1

<210> 72

<211> 4

<212> PRT

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 pdb/1CQK/1CQK-A

 <400> 72
 Pro Ala Ala Pro
 1

 <210> 73
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1CQK/1CQK-A

 <400> 73
 Pro Ala Ala Pro Gln
 1 5

 <210> 74
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 pdb/1CQK/1CQK-A

 <400> 74
 Pro Ala Ala Pro Gln Val
 1 5

 <210> 75
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: pdb/1BFB/1BFB

 <400> 75
 Leu Pro Ala Leu
 1

 <210> 76
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: pdb/1BFB/1BFB

<400> 76

Pro Ala Leu Pro

1

<210> 77

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFB/1BFB

<400> 77

Pro Ala Leu Pro Glu

1

5

<210> 78

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1R2A/1R2A-A

<400> 78

Leu Thr Glu Leu Leu

1

5

<210> 79

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C3G peptide

<400> 79

Pro Pro Pro Ala Leu Pro Pro Lys Lys Arg

1

5

10

<210> 80

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1RLQ/1RLQ-R

<400> 80
Leu Pro Pro Leu
1

<210> 81
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1RLQ/1RLQ-R; swissnew/P01229/LSHB HUMAN

<400> 81
Pro Pro Leu Pro
1

<210> 82
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1TNT/1TNT

<400> 82
Leu Pro Gly Leu
1

<210> 83
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1GJS/1GJS-A

<400> 83
Leu Ala Ala Leu
1

<210> 84
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1GJS/1GJS-A

<400> 84

Leu Ala Ala Leu Pro
1 5

<210> 85
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1GBR/1GBR-B

<400> 85
Pro Lys Leu Pro
1

<210> 86
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1A78/1A78-A

<400> 86
Val Leu Pro Ser Ile Pro
1 5

<210> 87
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1FZV/1FZV-A

<400> 87
Met Leu Pro Ala Val Pro
1 5

<210> 88
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1JLI/1JLI

<400> 88
Leu Pro Cys Leu

1

<210> 89
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1JLI/1JLI

<400> 89
Pro Cys Leu Pro
1

<210> 90
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1HSS/1HSS-A

<400> 90
Val Pro Ala Leu Pro
1 5

<210> 91
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1PRX/1PRX-A

<400> 91
Pro Thr Ile Pro
1

<210> 92
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1PRX/1PRX-A

<400> 92
Val Leu Pro Thr Ile Pro
1 5

<210> 93
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1RCY/1RCY

<400> 93
Val Leu Pro Gly Phe Pro
1 5

<210> 94
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1A3Z/1A3Z

<400> 94
Pro Gly Phe Pro
1

<210> 95
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1GER/1GER-A

<400> 95
Leu Pro Ala Leu Pro
1 5

<210> 96
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BBS/1BBS

<400> 96
Met Pro Ala Leu Pro
1 5

<210> 97
<211> 17

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: AI188872

<220>
<221> MISC_FEATURE
<222> (2)
<223> The 'Xaa' at position_2 indicates an unknown amino acid

<400> 97
Met Xaa Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 98
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: AI188872

<220>
<221> MISC_FEATURE
<222> (2)
<223> The 'Xaa' at position 2 indicates an unknown amino acid

<400> 98
Met Xaa Arg Val
1

<210> 99
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: AI126906

<400> 99
Ile Thr Arg Val Met Gln Gly Val Ile Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 100
<211> 16
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: AI221581

<400> 100

Met Thr Arg Val Leu Gln Val Val Leu Leu Ala Leu Pro Gln Leu Val
1 5 10 15

<210> 101

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.42246.3

<400> 101

Lys Val Ile Gln Gly Ser Leu Asp Ser Leu Pro Gln Ala Val
1 5 10

<210> 102

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.42246.3

<400> 102

Leu Asp Ser Leu
1

<210> 103

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.22430.1

<400> 103

Val Leu Gln Ala Ile Leu Pro Ser Ala Pro Gln
1 5 10

<210> 104

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.22430.1

<400> 104
Leu Gln Ala Ile Leu
1 5

<210> 105
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mm.22430.1

<400> 105
Pro Ser Ala Pro
1

<210> 106
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.63758.4

<400> 106
Lys Val Leu Gln Gly Arg Leu Pro Ala Val Ala Gln Ala Val
1 5 10

<210> 107
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.63758.4

<400> 107
Leu Pro Ala Val
1

<210> 108
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mm.129320.2

<400> 108
Leu Val Gln Lys Val Val Pro Met Leu Pro Arg Leu Leu Cys
1 5 10

<210> 109
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Mm.129320.2

 <400> 109
 Leu Pro Arg Leu
 1

 <210> 110
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Mm.129320.2

 <400> 110
 Pro Met Leu Pro
 1

 <210> 111
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Mm.22430.1

 <400> 111
 Pro Ser Ala Pro Gln
 1 5

 <210> 112
 <211> 11
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: P20155

 <400> 112
 Leu Pro Gly Cys Pro Arg His Phe Asn Pro Val
 1 5 10

 <210> 113
 <211> 11
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rn.2337.1

<400> 113

Leu Val Gly Cys Pro Arg Asp Tyr Asp Pro Val
1 5 10

<210> 114

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rn.2337.1

<400> 114

Leu Val Gly Cys
1

<210> 115

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hs.297775.1

<400> 115

Pro Gly Cys Pro Arg Gly
1 5

<210> 116

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.1359.1

<400> 116

Leu Pro Gly Cys Pro
1 5

<210> 117

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/O56177/O56177

<400> 117

Val Leu Pro Ala Ala Pro
1 5

<210> 118

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 118

Leu Ala Gly Thr Ile Pro Ala Thr Pro
1 5

<210> 119

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 119

Pro Ala Thr Pro
1

<210> 120

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9IYZ3/Q9IYZ3

<400> 120

Gly Leu Leu Pro Cys Leu Pro
1 5

<210> 121

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9PVW5/Q9PVW5

<400> 121

Pro Gly Ala Pro

1

<210> 122

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9PVW5/Q9PVW5

<400> 122

Leu Pro Gln Arg Pro Arg Gly Pro Asn Pro

1

5

10

<210> 123

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

sptrembl/Q9PVW5/Q9PVW5

<400> 123

Pro Arg Gly Pro

1

<210> 124

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hs.303116.2

<400> 124

Gly Cys Pro Arg

1

<210> 125

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pdb/1DU3/1DU3-A

<400> 125
Gly Cys Pro Arg Gly Met
1 5

<210> 126
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BIO/1BIO

<400> 126
Leu Gln His Val
1

<210> 127
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1FL7/1FL7-B

<400> 127
Val Pro Gly Cys
1

<210> 128
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
pdb/1HR6/1HR6-A

<400> 128
Cys Pro Arg Gly
1

<210> 129
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1H6/1HR6-A

<400> 129

Leu Lys Gly Cys

1

<210> 130

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 130

Pro Pro Gly Pro

1

<210> 131

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 131

Leu Pro Gly Cys Pro Arg Glu Val

1

5

<210> 132

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 132

Cys Pro Arg Glu

1

<210> 133

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 133

Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Leu Pro Gln Val Val

1

5

10

15

Cys

<210> 134
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 134
Met Met Arg Val
1

<210> 135
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 135
Val Leu Pro Pro Leu Pro
1 5

<210> 136
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 136
Val Leu Pro Pro Leu Pro Gln
1 5

<210> 137
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P01229/LSHB HUMAN

<400> 137
Ala Val Leu Pro Pro Leu Pro

1 5

<210> 138
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 138
 Ala Val Leu Pro Pro Leu Pro Gln
 1 5

<210> 139
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 139
 Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Val Pro Gln Val Val
 1 5 10 15

Cys

<210> 140
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 140
 Leu Gln Ala Gly
 1

<210> 141
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 141
 Val Leu Pro Pro Val Pro
 1 5

<210> 142
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 142
 Val Leu Pro Pro Val Pro Gln
 1 5

<210> 143
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 143
 Ala Val Leu Pro Pro Val Pro
 1 5

<210> 144
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 144
 Ala Val Leu Pro Pro Val Pro Gln
 1 5

<210> 145
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/Q28376/TSHB HORSE

<400> 145
Met Thr Arg Asp
1

<210> 146
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/Q28376/TS HB HORSE

<400> 146
Gln Asp Val Cys
1

<210> 147
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/Q28376/TS HB HORSE

<400> 147
Ile Pro Gly Cys
1

<210> 148
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9Z284/Q9Z284

<400> 148
Pro Ala Leu Pro Ser
1 5

<210> 149
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 149
 Leu Pro Gly Gly Pro Arg
 1 5

<210> 150
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 sptrembl/Q9UCG8/Q9UCG8

<400> 150
 Leu Pro Gly Gly
 1

<210> 151
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 sptrembl/Q9UCG8/Q9UCG8

<400> 151
 Gly Gly Pro Arg
 1

<210> 152
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: XP_028754

<400> 152
 Leu Gln Arg Gly
 1

<210> 153
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: XP_028754

<400> 153
 Leu Gln Arg Gly Val

1	5
---	---

<210> 154
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: XP_028754

<400> 154
 Leu Gly Gln Leu
 1

<210> 155
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SignalP (CBS)

<400> 155
 Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro
 1 5 10

<210> 156
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: HLA molecule
 type I (A_0201)

<400> 156
 Val Leu Gln Gly Val Leu Pro Ala Leu
 1 5

<210> 157
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: HLA molecule
 type I (A_0201)

<400> 157
 Gly Val Leu Pro Ala Leu Pro Gln Val
 1 5

<210> 158
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 158
Val Leu Pro Ala Leu Pro Gln Val Val
1 5

<210> 159
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 159
Arg Leu Pro Gly Cys Pro Arg Gly Val
1 5

<210> 160
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 160
Thr Met Thr Arg Val Leu Gln Gly Val
1 5

<210> 161
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 161
Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu
1 5 10 15

<210> 162
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 162
Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val
1 5 10 15

<210> 163
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0101
15-mers

<400> 163
Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser
1 5 10 15

<210> 164
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0101
15-mers

<400> 164
Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

<210> 165
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0101
15-mers

<400> 165
Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr
1 5 10 15

<210> 166
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0301
(DR17) 15-mers

<400> 166
Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val
1 5 10 15

<210> 167
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0301
(DR17) 15-mers

<400> 167
Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val
1 5 10 15

<210> 168
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 168
Val Ala Pro Ala Leu Pro Gln
1 5

<210> 169
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-62
peptide

<400> 169
Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro
1 5 10 15

Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
20 25 30

Ser Cys Gln
35

<210> 170
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-67
peptide

<400> 170
Cys Pro Arg Gly Val Asn Pro
1 5

<210> 171
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-70
peptide

<400> 171
Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln
1 5 10

<210> 172
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-75
peptide

<400> 172
Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly
1 5 10 15

Pro Cys

<210> 173
<211> 7
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 173

Val Ala Pro Ala Leu Pro Gln
1 _____ 5

<210> 174

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-71
peptide

<400> 174

Met Thr Arg Val Leu Pro Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 _____ 5 _____ 10 _____ 15

Cys

<210> 175

<211> ~~109~~

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF peptide

<400> 175

Cys Arg Gly Val Asn Pro Val Val Ser
1 _____ 5